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ABSTRACT

Similarity of friends and the degree to which friendship selection criteria and similarity change as a function of age were investigated in this study. Subjects were 27 preschoolers, 34 third graders, and 30 sixth graders. Fifty-three percent were male, 47 percent were female, and 29 percent were black. Friendship choices were measured by sociometric techniques, and dyads were classified as either reciprocal or nonreciprocal. Data were obtained on intelligence, self-concept, popularity, attractiveness, birth order, number of siblings, and social class. Reciprocal dyads were found to be more similar in total and personal self-concepts, popularity, and attractiveness than were nonreciprocal pairs. Grade effects were found for popularity, attractiveness, personal self-concept, and gender. Results were discussed in terms of the cognitive-developmental approach and friendship theories. (Author/RH)

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Similarity Effects and Age Differences in Children's Friendships

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Abstract

Similarity of friends and the degree to which friendship selection criterion and similarity change as function of age were studied. Subjects were 27 preschoolers, 34 third-graders, and 30 sixth-graders. Fifty-three percent were male, 47% female and 29% black Americans. Friendship choices were measured by sociometric techniques and dyads were classified as either reciprocal (mutual choices) or non-reciprocal (nonmutual choices). Data were obtained on intelligence, self-concept, popularity, attractiveness, birth order, number of siblings and social class. Reciprocal dyads were more similar in total and personal self-concepts, popularity, and attractiveness than non-reciprocal pairs. Grade effects were found for popularity, attractiveness, personal self-concept, and gender. Results are discussed in terms of the cognitive-developmental approach and friendship theories.

Similarity Effects and Age Differences in Children's Friendships

Preschool and elementary children use a common set of standards for friendship selection. They typically choose friends who are physically attractive, academic achievers, and most often latter born (Adams & Crane, 1980; Deutsch, 1981; Dion, 1973; Dion & Berscheid, 1974; Miller & Maruyama, 1976). Many of these previous friendship studies have investigated factors that influence the unidirectional selection of friends and not the dynamics of mutual friendships. However, those who have studied mutuality of friendship choices or dyad interactions have reported that mutual friends were more similar in interpersonal understanding and expressed more reciprocal interaction in communicative, affective, and task-oriented behaviors than unidirectional friends, acquaintances, or non-friends (Kurdek & Krile, 1982; Newcomb & Brady, 1982; Newcomb, Brady & Hartup, 1979). Results from these and other similar studies (Asher, Gottman, & Oden, 1977; Glidewell, Kantor, Smith, & Stringer, 1966; Shaw, 1974; Singleton, & Asher, 1977) tend to support the notion of social-psychological theories that interaction among people is enhanced by the similarity of personal characteristics (Newcomb, 1961; Thibaut & Kelley, 1959).

The cognitive-developmental approach has been used to explain the apparent change in friendship selection standards that occurs

with increasing age. Piaget (Piaget & Inhelder, 1969) suggested that the reasons for socialization and the methods actually used change as the cognitive abilities of elementary children increase. Children become more concerned about and aware of their peers' thoughts and feelings with increasing age. This approach has prompted the formulation of friendship stage theories to explain the developmental milestones in children's conceptions of interpersonal relationships by measuring descriptions or expectations of friends given by children of varying ages (e.g., Bigelow, 1977; LaGaipa, 1977; Peevers & Secord, 1973; Selman & Jacquette, 1977). The general findings are that as children increase in age, their expectancies of friends become more differentiated and increase in psychological and interpersonal depth.

Few studies have investigated age differences in the nature or similarity of mutual relationships. Thus, the main purpose of this study was to assess the similarity of friends and the degree to which friendship selection criteria and similarity change as a function of age. The effects of similarity in age, self-concept, intelligence, popularity, attractiveness, social class, birth order, and number of siblings on friendship selection were measured. It was hypothesized that children in reciprocal (mutual) relationships would be more similar in the areas of self-concept, popularity, and attractiveness than those in unreciprocated

(nonmutual) relationships. Second, it was hypothesized that the proportion of same-sex friendships would increase from preschool to sixth grade. Third, as grade level increases reciprocal friends should become more similar on the personality and social variables than the nonreciprocal dyads, especially in the area of self-concept.

Method

Subjects

The first sample, with data collected during the winter of 1982, included 27 preschool children from one day care center. There were 16 males and 11 females who ranged in age from 3 years, 4 months to 5 years, 5 months, and 18% were nonwhite. Data for the second sample was collected in the winter of 1983 on 34 third-grade and 30 sixth-grade children. The third-graders were students from two classes with 18 children in each class; only 17 from each class received parental permission to participate. The age range of the children in the third-grade was from 8 years, 5 months to 11 years, 2 months. There were 17 males and 17 females, 38% were nonwhite. All of the sixth-graders attended one class. The sixth-graders ranged in age from 11 years, 4 months to 13 years, 11 months, and consisted of 15 males and 15 females; 27% were non-white.

Measures

Friendship choices were measured by different sociometric techniques in the two samples. The picture postercard sociometric technique was utilized to determine the preschool children's

friendship choices while the third- and sixth-graders selected their best friends from an alphabetized list of their classmates' names (roster method). A popularity score was derived for each child by calculating the percentage of the total number of possible times he/she could be chosen as a friend by classmates.

The Peabody Picture Vocabulary Test (Dunn, 1965) was individually administered to the children to obtain a measure of verbal intelligence. Self-concept was measured by The Primary Self-Concept Inventory (Muller & Leonetti, 1974) which is composed of four self-concept scores--total, personal, social, and intellectual. Physical attractiveness was assessed by asking the third- and sixth-graders to choose the three most handsome boys and the three prettiest girls in their class; the preschoolers were asked to choose only one boy and one girl from mounted pictures of their classmates. Only the first choice of the third- and sixth-graders was used in the analyses to make their score calculation similar to the preschoolers.

Family background information about the preschoolers' birth order, number of siblings at home, and parents' occupation was obtained from the parents via a questionnaire whereas this same information was individually received from the third- and sixth-graders. Socioeconomic status was estimated from one factor--occupation--by using the Hollingshead Two-Factor Index of Social Position (Hollingshead, 1957).

Procedure

The preschoolers were individually administered the sociometric measure and the PPVT. Within a week, the Primary Self-Concept Inventory was administered in small groups. The elementary students were individually administered the PPVT and the questionnaire gathering information about their social backgrounds. As a group they were administered the sociometric measure, Primary Self-Concept Inventory, popularity and attractiveness questionnaire and the extracurricular interaction questionnaire, in this order. All testing was conducted by trained examiners.

Results

Two groups--reciprocal and non-reciprocal--were formed from the friendship choices of the children. The reciprocal group was composed of those children who received mutual friendship choices (reciprocal dyads) while the non-reciprocal group consisted of those children who did not receive any reciprocated (mutual) choices (unreciprocated dyads) for friend. As a result of this categorization, there were 61 reciprocal and 66 non-reciprocal dyads. Broken down by grade, there were 11 reciprocal and 27 non-reciprocal pairs in the preschool, 24 reciprocal and 24 non-reciprocal dyads in the third-grade, and 26 reciprocal and 15 non-reciprocal dyads in the sixth-grade. It was possible for the children to appear in more than one dyad. For each dyad, the score for each variable was the difference between each child's score in the dyad. In addition, dyads were classified as either same or difference in sex and race composition.

Two-way ANOVAs were calculated with reciprocity and grade as independent variables and the difference scores from the measures of intelligence, self-concept, popularity, physical attractiveness, birth order, number of siblings, and social class as dependent variables. The reciprocal and non-reciprocal groups differed on two variables, total self-concept, $F(1, 121) = 4.57$, $p < .05$, and personal self-concept, $F(1, 121) = 16.95$, $p < .001$. The children in the reciprocal dyads were more similar in these scores than those in the non-reciprocal pairs.

A main effect for grade was found for personal self-concept, $F(2, 121) = 4.86$, $p < .01$; social self-concept, $F(2, 121) = 3.02$, $p \leq .05$; physical attractiveness, $F(2, 121) = 11.97$, $p < .001$; birth order, $F(2, 121) = 9.96$, $p < .001$; number of siblings, $F(2, 121) = 10.28$, $p < .001$; and social class, $F(2, 121) = 6.33$, $p < .005$.

Scheffé's tests, with an alpha level of .05 were computed for a posteriori comparisons of the difference score means by grade. Preschool dyads were more similar than third-grade pairs in number of siblings and more similar than third- and sixth-grade dyads in birth order. Third-grade friendship pairs were more dissimilar in attractiveness and more similar in personal self-concept than preschool and sixth-grade dyads. Sixth-grade dyads were more similar in social self-concept than either grade level and were more similar in social class than third-grade dyads.

A significant reciprocity by grade interaction, $F(2, 121) = 3.69$, $p < .05$, was found for popularity. The reciprocal third- and sixth-grade dyads were more similar than their respective non-reciprocal pairs. Non-reciprocal third-grade dyads were more dissimilar than the non-reciprocal preschool or sixth-grade dyads.

A discriminant analysis was calculated with reciprocity as the criterion variable and the difference scores from these dependent measures: intelligence, self-concept, popularity, physical attractiveness, birth order, and number of sibilngs as predictor variables. The four significant discriminators indicated that the reciprocal dyads were more similar in popularity, $F(1, 125) = 25.54$, $p < .001$; personal self-concept, $F(1, 125) = 21.84$, $p < .001$; and physical attractiveness, $F(1, 125) = 15.92$, $p < .001$ than non-reciprocal dyads whereas the latter were more similar in birth order, $F(1, 125) = 20.06$, $p < .001$ than the former (see Table 1). The first discriminant

Insert Table 1 about here

function was significant, $\chi^2(4) = 51.65$, $p < .001$. These four variables correctly classified 79% of the reciprocal dyads, 71% of the non-reciprocal dyads, and 75% of the total number of dyads.

A dyad score for each variable was calculated by collapsing the individual scores of the members in each dyad (mean dyad score). Then a series of one-way analyses of variance were performed with reciprocity as the independent variable and the mean dyad scores as the dependent variables to specify the direction of the groups' similarities and differences (see Table 2). The reciprocal dyads had significantly higher mean

Insert Table 2 about here

scores in total self-concept, $F(1, 125) = 6.62$, $p < .05$; popularity, $F(1, 125) = 15.34$, $p < .001$; and birth order, $F(1, 125) = 19.38$, $p < .01$ than the non-reciprocal dyads. In addition, there was a trend for reciprocal dyads to have higher attractiveness scores, $F(1, 125) = 3.59$, $p < .06$, than non-reciprocal pairs.

A second discriminant analysis was performed with grade as the criterion variable and the dyad difference scores from these dependent measures: intelligence, self-concept, popularity, attractiveness, birth order, number of siblings, and social class as discriminators. The variables that significantly discriminated between preschool, third- and sixth-grade dyads were popularity, $F(2, 124) = 14.36$, $p < .001$; birth order $F(2, 124) = 12.16$, $p < .001$; physical attractiveness, $F(2, 124) = 10.07$, $p < .001$; social class, $F(2, 124) = 8.79$,

$p < .001$; social self-concept, $F(2, 124) = 7.71$, $p < .001$; personal self-concept, $F(2, 124) = 7.03$, $p < .001$; number of siblings, $F(2, 124) = 6.48$, $p < .001$; and verbal intelligence, $F(2, 124) = 5.90$, $p < .001$ (see Table 3).

Insert Table 3 about here

Additionally, a posteriori comparisons were calculated by the Scheffé test, with α set at .05, on the mean difference scores by grade level for only those variables that were not significant for the previous 2 (reciprocity) by 2 (grade) ANOVAs: verbal intelligence and popularity. No significant differences in similarity between grade level were found for verbal intelligence. Third-grade pairs were significantly more dissimilar in popularity than preschool or sixth-grade dyads. The first and second discriminant functions were significant, $\chi^2(16) = 81.70$, $p < .001$; $\chi^2(7) = 25.62$, $p < .001$, respectively. The first function explained twice as much variation in the grade level scores than the second function. The eight variables correctly classified 66% of the preschool dyads, 62% of the third-grade pairs, 68% of the sixth-grade dyads, and 65% of the total number of dyads.

One-way ANOVAs were performed on the mean dyad score for the dependent variables with grade level as the independent variable. The means for the significant main effects are presented in Table 4. The grade levels differed on the

Insert Table 4 about here

following variables: verbal intelligence, personal and social self-concept, popularity, physical attractiveness, birth order, social class and number of siblings, Fs(2, 124) = 12.68, 11.18, 57.98, 28.29, 49.73, 14.13, 6.99, 28.30, respectively. All Fs were significant at the .001 level. Further analyses of the means by the Scheffé technique revealed that preschool dyads obtained lower mean scores for social self-concept and birth order than third- and sixth-grade dyads and a lower sibling mean than third-graders. Third-grade dyads were more popular and viewed as more physically attractive than preschool or sixth-grade dyads. On the other hand, third-grade dyads expressed lower personal self-concept than the preschool or sixth-grade pairs. Sixth-grade dyads had higher verbal intelligence scores than the lower two grades. There was a tendency for sixth-grade dyads to be from a slightly higher social class than preschool or third-grade dyads, even though there were no significant differences between grade level for social class dyadic means.

A chi-square analysis revealed that as grade level increased from preschool (71%) to sixth (93%) children selected more same-sex friends, $\chi^2(2) = 6.90$, $p < .05$. This progression did not occur for race; selection of same-race friends by preschoolers (68%), third- (58%) and sixth-graders (69%) appeared to be a curvilinear function.

Discussion

Greater similarity and a higher frequency of positive social characteristics existed in mutual friendship choices than in unreciprocated or unilateral choices. These results concur with earlier studies that measured similarity in attitudes and perceptions of peers by using sociometric ratings (Davitz, 1955; Newcomb, 1956; Tagiuri, 1952; Thibaut & Kelley, 1959). Children continually need to validate their self-evaluation and social identity, thus, they seek congruency between self and peer perceptions as part of the validation process. Friendship formation is facilitated when two individuals possess impressions of each other that are similar to their own self-evaluations. Furthermore, favorable opinions of self may be enhanced by having mutual friendships. In the present study those children who had reciprocal friendships had more positive self-concepts and were more popular than those children who lacked mutuality in friendships, supporting the first hypothesis. Although it is difficult to determine the direction of causality, (i.e., do

children with positive self-concepts attract friends or do friends enhance self-concept), it is still reasonable to conclude that friends are important in the development of self-concept.

The present results support previous investigations of the relationship between birth order and liking (Deutsch, 1981; Miller & Maruyama, 1976). Children in reciprocated friendships were more often latter-born than those without reciprocated friendships. The characterization of the first born child as being less popular and less adept at friendship competencies is somewhat typified by these findings.

Piaget (1951; Piaget & Inhelder, 1969) theorized that cognition directly affects social interaction. As children increase in age and consequently in cognition, their ability to understand the thoughts and feelings of others is enhanced. Piaget formulated stages to explain these cognitive changes. During the preoperational stage, characteristic of preschoolers, children were described as frequently engaging in egocentric play. Their play behavior is dominated by a tendency to view their environment from only their point of view. Thus, when preschool children interact, they often do not play the same game using the same rules or play in a cooperative manner striving towards a common goal. Preschool egocentricity was evident by their social self-concept scores in the present study. The social self-concept dimension contained items

that involved a group of boys or girls playing cooperatively or one child playing by him/herself. The subject was to select the child that was like him/her. Preschool dyads had significantly lower social self-concept means than third- or sixth-grade pairs which supports Piaget's concept of egocentric play. The preschoolers chose the single child playing rather than the group of children more frequently than elementary schoolers. In addition, their lower popularity and physical attractiveness scores, compared to third-graders, also confirm the possibility that they were not as adept at using information concerning peer characteristics to select friends as the older children.

The high mean scores in popularity and physical attractiveness for the third-grade dyads may be a function of the growing significance of the peer group. When children are eight or nine years old, the peer group is important for detachment from parents and the formation of a sense of self or identity (Stone & Church, 1979). Peevers and Secord (1973) found that third-graders' descriptions of their peers contained a greater number of statements about appearance qualities and global judgments than junior high and high school children, which is consistent with the present data. Possession of favorable characteristics enhances a child's social desirability. Consequently, interaction with peers and friendship selection seem to be influenced by a child's social desirability during preadolescence.

From approximately age 7 to 11, children enter the concrete operational stage whereby they become cognitively able to understand their peers' viewpoints. This comprehension enables them to play cooperatively and compromise when formulating rules. Through games, where a variety of roles can be played, elementary school children learn to understand the different perspectives of others (Mead, 1934). As they develop relationships, they receive valuable feedback about themselves as they interact with their peers (Cooley, 1920). This feedback is then internalized and children continue to behave in either the same way or they try to change depending upon the nature of the feedback. In either case, involvement with peers, whether positive or negative, affects the development of the personal (feelings about one's emotional self) and social (feelings about one's ability to relate to others) self-concepts.

By sixth-grade, children should be approaching the formal operational stage (age 12 to adulthood) which enables them to think in abstract terms. Adolescents tend to think or relate to others in ways that are analogous to adult modes (Gruber & Vonèche, 1977; Thibaut & Kelley, 1959). Friendship stage theorists have found that an increase in inner qualities, traits, and dispositions were frequently utilized by sixth- and seventh-graders in their descriptions or expectations of friends (Bigelow & LaGaipa, 1975; Peevers & Secord, 1973; Selman, 1981).

As children mature, the social status of peers decreases as a criterion for friendship selection while mutual agreement, equality, and discussions of controversial issues prevail.

In the present study peers of the same sex with whom intimate thoughts and feelings can be shared were more preferred as friends by sixth-graders than by the younger children. Thus, the second hypothesis was supported in that as grade increased, the proportion of same-sex friendship preferences also increased. Consequently, similarity is more important in explaining the sixth-grade than preschool or third-grade friendship choices. The younger children appear to select friends who have socially desirable traits. Thus, there are more unreciprocated friendships and dissimilarity in their friendship dyads. They appear to be less aware of what a friend is and are not as competent in assessing potential friends as sixth-graders. The greater similarity in popularity, attractiveness, social class, social self-concept, and gender for sixth-grade dyads supports the social-psychological theories (Newcomb, 1961; Thibaut & Kelley, 1959) stating that positive social interaction is enhanced by similarity of the interactors. In addition, the sixth-grade dyads had more positive personal and social self-concepts than the younger children. These findings suggest that the sixth-graders felt in control of their emotional self and confident about their social interactions. Undoubtedly having mutual friends contributed to these perceptions.

The third hypothesis, that as grade level increased friends would have more similar total self-concepts, was not supported by the data. Since grade level differences were found for personal and social self-concept it seems that these dimensions were more closely tied into friendship selection than the overall self-concept.

In conclusion, the results from this study validated theoretical aspects of Thibaut and Kelley (1959), Piaget (1951, 1969), and Mead (1934), and friendship stage theorists. Greater similarity and higher scores in self-concept and popularity existed in more accurately perceived (reciprocal) friendships than in unidirectional (unreciprocated) friendships. Dyadic friendship preferences of preschoolers were egocentric, preferences of middle elementary schoolers were sociocentric, and choices of late elementary school children reflected perceptual mutuality through similarity.

References

Adams, G., & Crane, P. (1980). Expectations of preschool children's social preference for attractive or unattractive children and adults. Child Development, 51, 224-231.

Asher, S., Gottman, J., & Oden, S. (1977). Children's friendships in school settings. In L. G. Katz (Ed.), Current topics in early childhood education (Vol. 1). Norwood, N. J.: Ablex.

Bigelow, B. (1977). Children's friendship expectations: A cognitive-developmental study. Child Development, 48, 246-253.

Bigelow, B., & LaGaipa, J. (1975). Children's written descriptions of friendship: A multidimensional analysis. Developmental Psychology, 11, 857-858.

Cooley, C. H. (1920). Human nature and the social order (rev. ed.). New York: Charles Scribner's Sons.

Davitz, J. (1955). Social perceptioln and sociometric choice of children. Journal of Abnormal and Social Psychology, 50, 173-176.

Deutsch, F. (1981). Birth order effects on observational and sociometric measures of popularity for kindergarten children. Journal of Genetic Psychology, 138, 313-314.

Dion, K. (1973). Young children's stereotyping of facial attractiveness. Developmental Psychology, 9, 183-188.

Dion, K., & Berscheid, E. (1974). Physical attractiveness and peer perception among children. Sociometry, 37, 1-12.

Dunn, L. (1965). Peabody Picture Vocabulary Test. Circle Pines, Minnesota: American Guidance Service.

Glideweil, J., Kantor, M., Smith, L., & Stringer, L. (1966). Socialization and social structure in the classroom. In L. W. Hoffman & M. L. Hoffman (Eds.), Review of child development research. New York: Russell Sage Foundation.

Gruber, H., & Voneche, J. (1977). The essential Piaget. New York: Basic Books, Inc.

Hollingshead, A. B. (1957). Two-Factor Index of Social Position. Unpublished manuscript.

Kurdek, L., & Krile, D. (1982). A developmental analysis of the relation between peer acceptance and both interpersonal understanding and perceived social self-competence. Child Development, 53, 1485-1491.

LaGaipa, J. (1977). Interpersonal attraction and social exchange. In S. Duck (Ed.), Theory and practice of interpersonal attraction. London: Academic Press.

Mead, G. (1934). Mind, self, and society. Chicago: University of Chicago Press.

Miller, N., & Maruyama, G. (1976). Ordinal position and peer popularity. Journal of Personality and Social Psychology, 33, 123-131.

Muller, D., & Leonetti, R. (1974). Primary Self-Concept Inventory. Austin, Texas: Learning Concepts.

Newcomb, R. (1956). The prediction of interpersonal attraction. American Psychologist, 11, 575-586.

Newcomb, T. (1961). The acquaintance process. New York: Holt, Rinehart & Winston.

Newcomb, A., & Brady, J. (1982). Mutuality in boys' friendship relations. Child Development, 53, 392-395.

Newcomb, A., Brady, J., & Hartup, W. (1979). Friendship and incentive condition as determinants of children's task-oriented social behavior. Child Development, 50, 878-881.

Peevers, B., & Secord, P. (1973). Developmental changes in attribution of descriptive concepts to persons. Journal of Personality and Social Psychology, 27, 120-128.

Piaget, J. (1951). Play, dreams, and imitation in childhood. New York: W. W. Norton.

Piaget, J., & Inhelder, B. (1969). The psychology of the child. New York: Basic Books, Inc.

Selman, R. (1981). The child as a friendship philosopher. In S. R. Asher & J. M. Gottman (Eds.), The development of children's friendships. Cambridge: Cambridge University Press.

Selman, R., & Jacquette, D. (1977). Stability and oscillation in interpersonal awareness: A clinical-developmental analysis. In C. B. Keasey (Ed.), The Nebraska symposium on motivation (Vol. 25). Lincoln, Nebraska: University of Nebraska Press.

Shaw, M. (1974). Changes in sociometric choices following forced integration of an elementary school. Journal of Social Issues, 29, 143-157.

Singleton, L., & Asher, S. (1977). Peer preferences and social interaction among third-grade children in an integrated school district. Journal of Educational Psychology, 69, 330-336.

Stone, L., & Church, J. (1979). Childhood and adolescence. New York: Random House.

Tagiuri, R. (1952). Relational analysis: An extension of sociometric method with emphasis upon social perception. Sociometry, 15, 91-104.

Thibaut, J., & Kelley, H. (1959). The social psychology of groups. New York: Wiley.

Table 1

Mean Difference Scores by Reciprocity

	Group Means	
	Reciprocal	Non-reciprocal
Verbal intelligence	16.13	15.47
Total self-concept	2.34	3.30
*Personal self-concept	.87	1.59
Social self-concept	1.39	1.74
Intellectual self-concept	1.02	1.03
*Popularity	9.10	19.30
*Physical Attractiveness	12.10	12.20
*Birth Order	1.34	.86
Number of Siblings	1.20	1.03
n	61	66

Note. The smaller the mean score the greater the similarity in the dyads.

*Significant variables at $p < .05$.

Table 2

Mean Dyad Score by Reciprocity

	Group Means	
Dependent Variables	Reciprocal	Non-reciprocal
**Total self-concept	13.92	13.00
Personal self-concept	4.41	4.21
Intellectual self-concept	4.84	4.65
**Popularity	19.18	13.20
*Physical attractiveness	11.74	8.92
**Birth order[a]	2.03	1.38
n	61	66

[a] The higher the mean score, the more latter-born.

*$p < .06$ **$p < .05$.

Table 3

Mean Difference Scores by Grade

Discriminators	Group Means		
	Preschool	Third	Sixth
*Verbal intelligence	18.97	15.83	12.78
Total self-concept	3.08	2.67	2.83
*Personal self-concept	1.32	.94	1.54
*Social self-concept	1.74	1.83	1.12
Intellectual self-concept	1.03	.98	1.07
*Popularity	8.79	21.13	11.73
*Physical attractiveness	9.92	17.69	7.73
*Birth order	.32	1.52	1.32
*Number of siblings	.45	1.65	1.10
*Social class	1.53	2.23	1.19
n	38	48	41

Note. The smaller the mean score, the greater the similarity in the dyads.

*Significant variables at $p < .05$.

Table 4

Mean Dyad Scores by Grade Level

	Group Means		
Dependent Variables[1]	Preschool	Third	Sixth
Verbal intelligence	106.66	101.21	114.68
Personal self-concept	4.74	3.83	4.46
Social self-concept	2.50	4.25	4.76
Popularity	12.26	22.56	12.00
Physical attractiveness	8.18	14.85	6.85
Birth order	1.11	1.96	1.93
Number of siblings	1.42	2.77	2.39
Social class[2]	3.08	3.60	2.44
n	38	48	41

[1]All variables are significant at $p < .05$.

[2]The lower the mean score, the higher the social class level.